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| 1. What is our purpose? | | |
| **To inquire into the following:**   1. **Transdisciplinary Theme**   How the world works   1. **Central Idea**   People develop awareness of their surroundings by estimating and comparing measurable attributes of real objects and events, in order to function in daily life**.**  **Summative Assessment Task(s):**  What are the possible ways of assessing students’ understanding of the central idea?  What evidence, including student-initiated actions, will we look for?  Children will participate in a challenge race by facing 3 circuits**:**   1. **ESTIMATING B. COMPARING C. MEASURING.** The 4 classes will take turns.   **Prompt:** Make a group of 4 students each.  **Role:** you are a member of a relay team (describe the three circuits including which non  standard unit matches to the attribute to measure, for example: for length, they can compare  the playground games. For weight, their pencil cases with all supplies and few of them. For  heightTemperature, measure temp water in thermoses and in bottles. Time: how long does it take  to solve addition/subtr equat or to find the combinations for a number)  **Audience:** teachers and other kinder students  **Format:** Practical (actions) and a measurement chart  **Task:** your team has to fulfill the assigned challenge according to the circuit   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **A** | **B** | **C** | **D** | | ESTIMATION  COMPARING  MEASURING | Estimates, compares and measures, with non-standard units of measurement length, height, weight (short, long, tall, heavy, light) and  time and temperature (hot, warm, cold, before, after, day, night). | Estimates, compares and measures, with non-standard units of measurement length, height and weight (short, long, tall, heavy, light). | Estimates, compares and measures with non-standard units of measurement length or height or weight | Is not able to estimate, compare or measure with non-standard units of measurement, length, height and weight (short, long, tall, heavy, light). | | | |
| **Class/Grade:**Kinder | PYP Planner |
| **Age Group:**5 to 6 years old |
| **School:**Colegio Colombo Británico |
| **School Code:**700202 |
| **Title:** | |
| **Year:**2012-2013 | |
| **Teachers:** Claudia Madriñán, Sidey Viedman, Mark Hustad, Claudia Ayerbe, Laura Restrepo, María Fernanda Romero, Elaine Escobar, María Alejandra Ossa | |
| **Proposed Duration:**  hours over weeks | |
| 2. What do we want to learn? | |
| What are the key concepts to be emphasized within this inquiry?  FORM FUNCTION PERSPECTIVE  ESTIMATION COMPARISON MEASUREMENT | |
| What lines of inquiry will define the scope of the inquiry into the central idea?   * An inquiry into the attributes of objects in our surroundings and which of them can be measured * An inquiry into the relationship between comparing and ordering objects according to attributes * An inquiry into the way I estimate, compare and measure using non-standard units in order to solve daily life situations | |
| What teacher questions/provocations will drive these inquiries?  **Teacher Questions**  How can we measure objects?  What attributes can be measured?  What non-standard units of measurement can we use?  How can you compare objects?  What do you need to have in mind when you are measuring and comparing objects?  Why is it important to measure objects?  **Provocations**  ~~Children will watch videos where people are having difficulties getting through or in a space.~~  Children will watch the video “Sid the scientist kid” about estimating and measuring the classroom with non-standard units such as a child’s body. | |

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| **3. How might we know what we have learned?**  This column should be used in conjunction with “How best might we learn?” | **4. How best might we learn?** |
| **What are the possible ways of assessing students’ prior knowledge and skills? What evidence will we look for?**  Teacher will place two sets of objects on 2 different tables. Teacher will also place objects used as non-standard units of measurement between the tables.  The teacher will ask the children how the objects on the tables can be measured and take notes on what the children say. Then, will ask them if they could use the objects between the tables to measure. They will explore and the teacher writes about it.  **What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?**  **The relationship between comparing and measuring**  Children will estimate an compare objects according to the length, weight, and share their conclusions  Strategy: Open-ended task Tool: Anecdotal record  **The attributes of objects in our surroundings**  Children will choose an object and describe it, how it can be used ~~and what it is made of.~~  Strategy: Observation Tool: Checklist  **Uses of attributes to compare and measure**  Children will be shown objects of different sizes. They will choose a non-standard unit of measurement to estimate its length, weight or height, and then they will measure to see the true measurement.  Strategy: Observation Tool: Checklist  **Estimate and compare in order to solve daily life situations**  Children will use a non-standard unit of measurement to estimate and measure the distance  between two points.  Strategy: Observation Tool: Checklist | **What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?**  **MEDIA: PRINTED, AUDIOVISUAL, INTERNET**  Children will watch videos about non-standard units to measure length, height, time and temperature.  **INTERVIEWS: EXPERTS**  **Interactive Presentations by experts**  **Carmen Elvira Cabal:** She is going to tell children that Mis Fayad asked her to find out how heavy a weight is. With the children’s help, they are going to use non-standard units of measurement such as Cuisenaire rods, toys, etc. First they have to estimate, then measure it and the expert will register the information in a chart. ~~Children will be divided into 5 groups and each group will have a container, the expert asks questions such as: What objects fit in it? How do they know? Children will prove their hypothesis. The expert is going to give many opportunities to practice at the end all together will make an analysis of what happened and the results of the inquiry.~~  **SURVEY :**  Children will go around and ask people what non-standard units they use to measure.  **OBSERVATION / EXPERIENCE: ACTIVE, HANDS-ON**  . Children will have many opportunities to compare objects in their classroom.  . They will use different non-standard units to measure classroom objects and solve problems.  . They will play a game to understand tall and short attributes with body motions and their height. They will walk around to identify tall and short in their surroundings. They will register their findings on their notebooks.  . Children will have the opportunity to manipulate objects with different weight in order to identify the attributes and compare them. They will register their findings on their notebooks.  . In groups, children will choose a non-standard unit to estimate, measure and compare tall and short objects, registering that information on a chart, then, heavy and light objects.  . Children will make jelly and see its process from hot to cold (temp.) and before and after (time).  In four stations (time, temperature, length and height) the children will have the opportunity to estimate, measure and compare objects and events.  .They will classify, estimate and measure different objects keeping in mind the tool and how many times they will use that tool to accomplish the goal (height of the board, the length of the notebook, length of the folder, the height of the monkey bars, the height of the sink), to develop awareness of their surroundings and the measurable characteristics of things  **What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?**  **Transdisciplinary Skills**  **Specific maths skills**  **Count, sort, match and compare objects:** Children will count, sort, match and compare objects and spaces found in their surroundings, using non-standard units of measurement in order to solve daily life situations.  **Use mathematical vocabulary:** Children will learn to use the proper mathematical vocabulary of measurement and the names of the attributes.  **Make reasonable estimation:** Children will learn to make viable estimations with more accuracy.  **Learner Profile**  ***ATTRIBUTES***  Children will be thinkers when they provide solutions to problems raised by teachers as acquiring knowledge of the height, length or weight of an object. They will also strive to be communicators when they explain their findings and possible solutions to the situations.  ***ATTITUDES***  Children will show creativity when dealing with the problems they face that require measurement. |
| **5. What resources need to be gathered?** |
| **What people, places, audio-visual materials, related literature, music, art, computer software, etc. will be available?**  Computer software, books and any objects to be measured or to be used as non-standard measurement units.  Carmen Elvira Cabal-Math’s expert  **How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?**  Everything in our surroundings is measurable. |

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| **6. To what extend did we achieve our purpose?** |
| **Assess the outcome of the inquiry by providing evidence of students’ understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.**  Children got a good idea on how to estimate with a viable accuracy, and how to consequently, measure to compare the difference between the estimation and the true measurement. This gave them the idea on how to estimate measurable attributes of real objects and events that help them function in real life.  Children started to use the vocabulary to talk among them and make exercises by themselves in the playground to see if they fit in the different spaces. |
| **How you could improve on the assessment task(s) so that you would have a more accurate picture of each student’s understanding of the central idea.**  Teachers should explain to the children in advanced how to estimate rather than guess to have a more accurate picture of how much the children learnt.  Give them more opportunities to practice the abilities, before the performance assessment. |
| What was the evidence that connections were made between the central idea and the transdisciplinary theme?  If children are aware of their surroundings using estimation and measurement in daily life situations, it gives explanations of some ways the world works. |

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| **7. To what extent did we include the elements of the PYP?** |
| **What were the learning experiences that enabled students to:**   * Develop an understanding of the concepts identified in “What do we want to learn?”   There were different activities that helped children to understand the concepts proposed in this independent inquiry, the video was a good opening for them. It helped teachers to see how much children know about the lines. The survey did provide children knowledge that helped to have a better comprehension of the lines of inquiry. One of the clearest activities was the one about the analysis how to measure their daily life objects with different tools; it reinforced the understanding about the concepts. Questioning related to the unit, as part of the daily routine, helped children to make connections and reinforce their learning.   * Demonstrate the learning and application of particular transdisciplinary skills?   The skills worked during the unit helped them to have a better vision about the importance of measurement to solve problems in daily life situations.   * Develop particular attributes of the learner profile and/or attitudes?   Children had the opportunity to develop the attributes and showed self-confidence  to explain all their findings. They were able to communicate their results and knowledge learnt.  They also showed their abilities to draw conclusions and make inferences about estimation, comparison and measuring, They were thinkers by solving problems in their daily life. |

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| **8. What student-initiated inquiries arose from the learning?** |
| **Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.**  Children started to play spontaneously to measure objects around and compare among themselves.  They talked among themselves about the topic and looked for other non-standard units and made jokes about that.  **What student–initiated actions arose from the learning?**  Some children started to race to measure distances during recess time.  They started to measure each other to see who was taller or shorter. |
| **9. Teacher notes** |
| If time permits we would like to have more experts and field trips. |